

The opinion in support of the decision being entered today
is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DIRK MANGLER, MARKUS REIFFERSCHIED,
and UWE PLOCIENNIK

Appeal 2007-1835
Application 10/509,861
Technology Center 1700

Decided: August 10, 2007

Before CHUNG K. PAK, CHARLES F. WARREN, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

ORDER REMANDING TO THE EXAMINER

We remand the application to the jurisdiction of the Examiner pursuant to 37 C.F.R. § 41.35(b) and 37 C.F.R. § 41.50(a)(1) for action in accordance with our comments below.

Appellants' invention relates to a mold for casting of molten metals. Independent claim 1 is illustrative of the invention:

1. Mold for the continuous casting of molten metals, especially steel, with cooling channels (1), such as grooves, slits, or bores, in the side (2) of

the mold that faces away from the melt contact surface, in which mold, in conformity with the design of the cooling channels (1), the cooling effect of the cooling channels (1) is maximized in the region of the maximum heat flux density or the maximum temperature of the contact surface (18), wherein the local heat-transfer cooling channel surfaces are adapted varyingly via geometric designs of the heat-transfer surface areas of a cooling channel (1) or of a group of cooling channels in shape, cross-sectional area, circumference, boundary surface properties, and orientation relative to the contact surface to the local development of the heat flux density and/or temperature of the contact surface (18) in the casting operation, such that to influence the local cooling intensity of a cooling channel (1), its effective heat-exchange surfaces on the base of the channel or on the lateral surfaces are increased or decreased, and to influence the local cooling intensity of a cooling channel (1), its isoperimetric cross-sectional area is increased by providing additional grooves in the base or lateral surfaces or decreased by inserting displacement bodies.

The Examiner rejected claims 1-5, all of the pending claims, under 35 U.S.C. § 102(b) as anticipated by GB 1,082,988. This is the sole ground of rejection. The Examiner's rejection reads as follows:

As to claims 1 and 5, GB '988 disclose a mold for continuous casting comprising cooling channels, such as cooling bores, in the side of the mold. The varyingly geometric design of the heat transfer surface areas of a cooling channel are adapted in shape, cross-sectional area, to the local development of the heat flux density in the casting operation. The effective heat exchange surfaces on the base of the channel can be increased or decreased, to influence the local cooling intensity (figures). (Answer 3).

Appellants contend that GB '988 fails to anticipate the claims because "[a]t no point does GB '988 disclose or suggest that the 'cooling channel surfaces are adapted . . . in shape, cross-sectional area, . . . to the local development

of the heat flux density . . . in the casting operation . . .’, as in the presently claimed invention.” (Br. 6-7).

A determination that a claim is anticipated under 35 U.S.C. § 102(b) involves two analytical steps. First, the Examiner must interpret the claim language where necessary. Secondly, the Examiner must compare the properly construed claims to a prior art reference and make factual findings that “each and every limitation is found either expressly or inherently in [that] single prior art reference.” *In re Crish*, 393 F.3d 1253, 1256, 73 USPQ2d 1364, 1366-67 (Fed. Cir. 2004) (quoting *Celeritas Techs. Ltd. v. Rockwell Int’l Corp.*, 150 F.3d 1354, [1361], [47 USPQ2d 1516, 1522] (Fed. Cir. 1998)). As explained by our reviewing court in *In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1028 (Fed. Cir. 1997):

The process of patent prosecution is an interactive one. Once the PTO has made an initial determination that specified claims are not patentable (the prima facie case concept, *see In re Oetiker*, 977 F.2d 1443, 1448, 24 USPQ2d 1443, 1447 (Fed. Cir. 1992) (Plager, J. concurring)), the burden of production falls upon the applicant to establish entitlement to a patent. *See In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); *In re King*, 801 F.2d 1324, 1327, 231 USPQ 136, 138 (Fed. Cir. 1986) (burden shifts to appellant after the PTO establishes a prima facie case of anticipation). This promotes the development of the written record before the PTO that provides the requisite written notice to the public as to what the applicant claims as the invention.

The present record fails to provide the requisite written notice to the public. The Examiner has not provided an explanation of how the claim language has been interpreted and has not explicitly identified where “each and every claim limitation” is disclosed in GB ‘988. For example, the

Examiner has not explained how the claim language “adapted . . . relative to the contact surface to the local development of the heat flux density and/or temperature of the contact surface” has been interpreted in the context of the Specification. Nor has the Examiner explained how this claim feature is necessarily present in the configuration of passages 3/restrictor rod 4 disclosed in GB ‘988. A general reference to the figures (Answer 4 and 5) as illustrative of the claimed “geometric designs of the heat-transfer surface areas of a cooling channel” is simply not sufficient to establish anticipation in this case. Likewise, the Examiner does not identify where “GB '988 discloses that Q_{max} and T_{max} is inherently in the region under molten metal level” (Answer 5).

Accordingly, we Remand this Application to the Examiner pursuant to 37 C.F.R. § 41.50(a)(1) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)) to take appropriate corrective action.

REMANDED

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